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CASES IN PRACTICE.

BY ROBERT B. CARTER, F.R.C.S.

Circumscribed Abscess in the Vitreous Body.

A FARM labourer, 57 years of age, presented himself with the following history :—

Twenty-five years ago, while chopping wood, he received a blow on the right eye from a splinter. The eye became inflamed and painful, and was under medical treatment for two months or more. It so far recovered that all pain and redness disappeared ; but vision was permanently impaired. The patient could read large print with it, such as the announcements on wall placards, but not the ordinary type of a book or newspaper. The left eye was unaffected.

A fortnight before I saw him, the patient was awakened in the night by some irritation in the right eye, and rubbed it strenuously. In the morning it was red and painful, and it continued so until his visit to me. A surgeon who saw him gave him some pills and a lotion, but they afforded him no relief.

I found the conjunctiva much injected, and the cornea rather dull. At the upper part of the cornea, at its junction with the sclera, was an old cicatrix, the size of a hemp-seed, to part of which the iris was adherent. This cicatrix had probably become staphylomatous, and had at last given way ; for at its apex there was a small opening, through which the aqueous humour escaped as fast as it was secreted. The iris was in contact with the cornea ; the pupil was contracted, but was sufficiently large to display an opaque lens behind it. There was no chemosis, no redness or swelling of the lids, and no increase of tension. The pain was troublesome, but not very severe, and was irregularly remittent. Vision was limited to quantitative perception of light. The other eye was not very evidently affected ; but on close inspection, it showed signs of a tendency to sympathetic irritation.

It seemed possible that a chip of wood might have been driven into the eye by the original accident; and that, after being long quiescent, it might now be exciting inflammation. Had there been no perception of light, I should have thought removal of the globe the proper course to pursue; and I therefore tested the existence of that perception with great care. The sound eye was covered with an effectual compress, and the patient was placed a few feet from an argand gas-burner, in a room from which other light was excluded. As the flame was raised and lowered, he never failed to recognize the change produced.

Having satisfied myself upon this point, I hoped that an iridectomy would check the existing inflammation, and that removal of the opaque lens would restore the eye to some degree of usefulness. I placed the patient on a couch, passed one blade of a pair of scissors through the opening in the cornea, and enlarged it sufficiently in opposite directions to allow of the exit of the lens. I then excised a piece of the iris, lacerated the capsule, and removed the lens with Mr. Critchett's scoop. In all this there was no difficulty, and no escape of vitreous humour.

On introducing the scoop a second time, in order to remove some fragments of softened cortical material, I observed the presence of an opaque yellow substance behind the cavity left by the lens. I passed the scoop into this substance, and brought away some extremely viscid pus. After two or three scoopfuls had been removed, an escape of normal vitreous humour took place, and I then closed the eyelids and applied a compress. On the following day all pain had ceased, the eyeball had collapsed, and the patient, still protected by a compress, was able to resume his occupation.

I have thought this case worthy of being placed on record, because it can only very seldom be possible to obtain distinct ocular proof of circumscribed suppuration in the vitreous body. Such proof, when obtained, affords important support to the views advanced by Dr. Jago with regard to the character of that structure, so far, at least, as the central cavity is concerned. Dr. Jago says :—

"From the walls of the cavity behind the crystalline lens, as far as it is lined by hyaloid membrane, there springs into view a lax network of beaded fibre, which is the frame of an invisible membrane that divides the peripheric portion of the vitreous into a certain number of little chambers, separating them from each other, and from a larger middle one."—(*Entoptics*, p. 74.)

It is also worthy of note that pus should be present in the

eye without any of the usual external signs of suppuration, and while perception of light was retained. It is more probable, I think, that this perception was due to rays piercing the sclerotic and choroid (which last membrane would probably have been greatly deprived of pigment by the former inflammation), than that any light was received by the retina through the threefold barrier of a contracted pupil, a cataractous lens, and a deposit of pus that was almost semi-solid in its density.

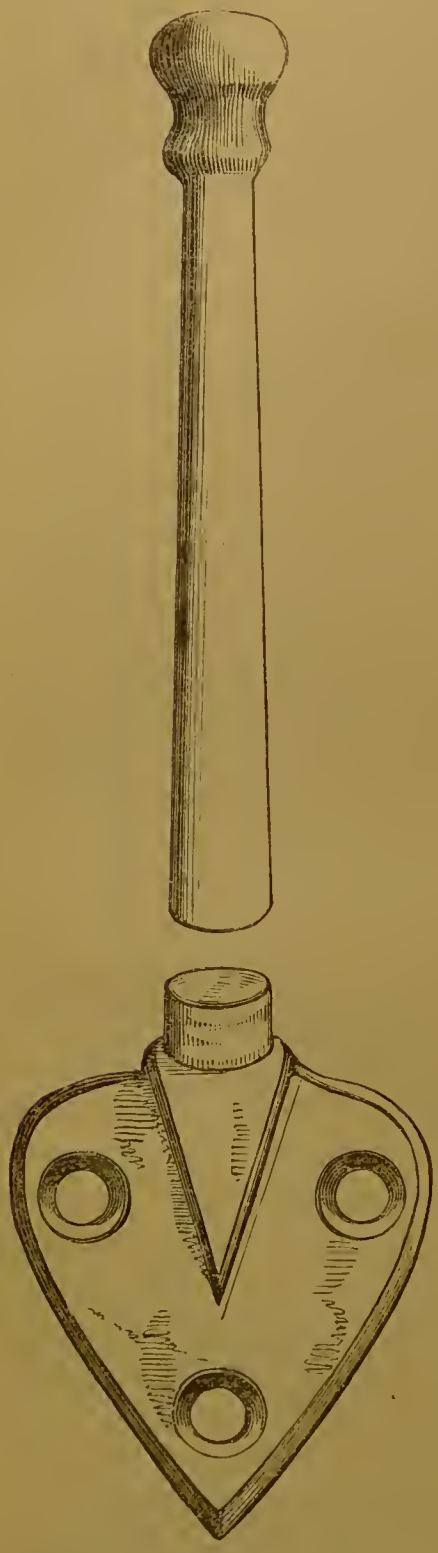
Foreign Body impacted in the Orbit.

For my knowledge of the following case I am indebted to the kindness of Alfred Clarke, Esq., of Gloucester.

G. W., a hale, vigorous old man, turned 73 years of age, fell down stairs in the dark, being drunk, some time in the last few days of May. He did not lose consciousness from the fall. He injured the nasal side of the right eye, and bled very freely from the wound; but he did not seek medical aid till June 1st, when he went to Mr. Clarke, who found a ragged conjunctival wound and much swelling of the lids, and ordered a simple dressing. The patient presented himself at intervals until the 6th of June, when Mr. Clarke discovered the presence of a foreign body in the wound, but deferred its removal until the following day, when he visited the man at his home. He then felt the extremity of a piece of iron, which he seized with forceps and attempted to withdraw. By using considerable force, and after much time, he removed the entire shaft of a cast-iron hat-peg, measuring three inches and three-tenths in length, and weighing twenty-five scruples. On further inquiry, Mr. Clarke found that this hat-peg had been one of a row, screwed to the wall near the bottom of the staircase; so that the man must have fallen upon the end of the peg, and must have broken it by his momentum after it had become completely buried in his orbit. The base of the hat-peg was still in its place in the row, and presented a recently fractured surface fitting accurately to that of the portion removed from the patient. The annexed woodcut represents the hat-peg and its base precisely of their natural size.

When the question arose with regard to the exact period of impaction, no one could answer it. There were the seven days during which the patient had been under medical observation; but he could not remember on what day of the week he fell down, and could only say that it was four or five days before he went to the doctor. Four

or five, with an illiterate old man, means simply *x*; but it may be presumed that the actual period of impaction was between ten and twenty days. The patient recovered without a single unfavourable symptom.



To-day, November 12th, I have made a careful examination of the injured part.

The hat-peg appears to have lacerated the conjunctiva of the globe a little to the inner side of the cornea, and to have passed between the ocular muscles and the lacrymal apparatus without injury to either. About a line from the corneal margin, and below the horizontal meridian of the eye, there is an excrescence as large as a small hemp-seed, and resembling the little growths that sometimes follow operations for strabismus. From this excrescence as an apex, a conical patch of vascularity, like a pterygium, extends to the caruncle, and the patient says that a few exceedingly small fragments of bone have worked out. The excrescence probably conceals the opening of a fistula; but I sought vainly for such an opening with a probe. The vision and movements of the eye are unimpaired, and the lacrymal apparatus is perfect. But the excrescence, by resting on the margin of the lower lid, diverts a portion of the tears from their proper course, and occasions a slight epiphora. This is, indeed, the only inconvenience that the patient has sustained from the injury.

Mr. Clarke was compelled to use very considerable force to remove the hat-peg, and had to loosen it by lateral movements as well as by

direct pulling. Partly from this reason, and partly from his natural astonishment at its bulk and length, he can scarcely be certain of its direction; but, from the relation of its original position to the probable direction of the fall, as well as from anatomical considerations, and from his impression at the time, he thinks that its point must have been received in the antrum of the opposite side. The entire absence of head symptoms, however, must not be taken as conclusive upon this part of the question; since there are cases on record, perfectly authenticated, in which undoubted injuries to the brain have been recovered from without any symptoms that could have revealed their existence.

The great length of the foreign substance makes this case, I believe, unique; but one of an analogous nature, and, in some respects, even more remarkable, occurred in the practice of Nélaton. It is thus described by Drs. Zander and Geissler (*Verletzungen des Auges*, Bd. i. s. 225):—

"A man, 26 years old, applied at Nélaton's hospital on account of a lacrymal fistula, and stated that three years previously he had received a blow, in the inner angle of his left eye, from the ivory handle of an umbrella, and that it had rendered him unconscious for several hours. At that time he was taken to Desmarres' hospital with a bleeding wound, a centimetre and a half in length, at the place of injury. This wound was examined with a probe, and it was believed that a splinter from the superior maxillary bone had been driven between the eye and the inner wall of the orbit. Various fruitless endeavours were made to remove this supposed splinter, and some small white particles were brought away by the forceps. The globe was unhurt, but its movements towards the nose were impeded, and mydriasis was produced. The suppuration gradually diminished, and the skin contracted and healed, leaving only a fistulous opening to a channel leading to the supposed splinter. Further treatment was then abandoned, and the patient was discharged. On presenting himself to Nélaton, he exhibited slight exophthalmus on the left side, with strabismus divergens; the sclera yellowish, or slightly coloured, as if from ecchymosis; the refracting media normal. Below the inner angle of the eye was a sinus, one centimetre in depth, having an external opening precisely like that of a lacrymal fistula, but the lacrymal sac was healthy, and the tears passed into the nose without impediment. A probe, introduced with some difficulty, struck upon a very hard, smooth, and immovable substance. Lying

down at night produced severe pain in the left side of the head, which pain almost entirely subsided in the daytime. Notwithstanding the certainty of the patient that there was no foreign body, and his assertion that the umbrella had not been broken by the blow, Nélaton did not feel satisfied upon the point, and he determined to remove the hard substance, whatever it might be. He made an incision, two centimetres in length, over the inferior margin of the orbit, and through this incision a slight mobility of the substance could be felt. The substance was then seized with strong forceps, and, to the astonishment of everybody, an ivory handle was withdrawn, cylindrical in shape, four centimetres (one inch and five-eighths) in length, and a centimetre and a half in thickness. The end that had been turned outwards showed where it had been broken from the wood of the umbrella-handle, and presented indentations, produced by the attempts at extraction made by Desmarres three years before. There followed some bleeding from the right nostril, the pains disappeared, and the eye regained its movements inwards. After a few days the patient left the hospital with his vision improved, and with the fistula nearly healed."

A case of impaction for a much longer period, although the foreign body was smaller, and the result much less favourable, is thus recorded by Pagenstecher :—

"Marie D——, aged 24 years, presented herself at my hospital at Wiesbaden on the 26th of March, 1863. She was of good constitution and of healthy aspect. In her seventh year she fell down, while knitting, and perforated the right eyeball with one of the needles, which was, she said, withdrawn entire. The accident excited chronic inflammation, which soon destroyed vision, and eventually produced considerable convergence of the affected eye, and destroyed the power of abduction. After this the patient continued to suffer from attacks of subacute inflammation, which required medical treatment. After some years an attempt was made to remedy the strabismus by operation, but without success, as it was impossible to discover the rectus internus muscle. Latterly the left eye, which had not before suffered, presented inflammatory symptoms, which, from the description of the patient, were due to pustular conjunctivitis with superficial keratitis. I found the right eyeball reduced to two-thirds of its proper size. It was strongly adducted, and fixed in such a manner that only a portion of the cicatricial tissue that replaced the cornea was visible below the much

swollen conjunctiva. The conjunctiva of the globe was chemotic; the eyelids were œdematous and red. Pressure upon the globe, moderately firm, was productive of pain. The left eye shunned the light, its conjunctiva was slightly reddened; the cornea, iris, and lens were of normal aspect. Functional examination disclosed marked impairment of the power and range of accommodation. Ophthalmoscopic examination showed a normal condition of the media, the choroid healthy, the optic disk much reddened. In this condition it seemed imperative to remove the right eye, in order to arrest the precursory symptoms of sympathetic inflammation of the left. The operation was performed on the 30th of March. It presented some difficulties, because it was impossible to rotate the globe in order to cut the internal, superior, and inferior recti. Upon endeavouring to divide the optic nerve, the scissors encountered very considerable resistance, caused by a hard body six or eight millimetres in length, and one in thickness, which, issuing from the vault of the orbit, had pierced the sclerotic at its posterior and inferior part, and evidently held the eye in adduction. The body had the form of a ridge, appeared slightly movable and elastic, and the patient, recovered from anæsthesia, exhibited acute pain when it was touched. As the scissors would not divide it, it was necessary to remove about three-fourths of the sclerotic with its contents. The point of the supposed osseous ridge was covered by smooth dense tissue, and by the remains of the sclerotic. I applied a compress, determining to make a more careful examination after a time. In the course of the afternoon the patient was much disturbed, suffered severe pain on the right side of her head, and had several violent attacks of vomiting; symptoms that were attributed to the chloroform. The cure made no progress, and the wound, instead of healing, as usual, by the first intention, discharged fetid pus, while the patient remained in a state of continued febrile excitement. The headache continued, and the eyelids swelled; but the sickness ceased on the 1st of April. To the 20th of the same month the patient continued very weak, with complete anorexia, persistent headache, and offensive suppuration from the wound. On that day the hospital was visited by my friend Professor Esmarch, of Kiel, who suggested to me that some foreign body was lodged in the orbit, causing the suppuration and retarding the cure. Against the wish of the patient, who assured us that the needle which injured her had not been broken, I placed her again under chloroform. The finger introduced into the orbit again encountered the movable and elastic

point of which mention has been made. I introduced a pair of dressing-forceps along my finger, seized the substance, and, by tolerably strong traction, withdrew a fragment of knitting-needle, one centimetre in length, and very rusty. It came in a direction which left no doubt that it had penetrated the inner wall of the orbit, and passed along the internal surface of the cranial cavity towards the right petrous bone. Slight hæmorrhage followed the extraction, and a light dressing was applied. Towards evening the patient was attacked by violent vomiting, and by acute pain on the right side of the head and towards the occiput. The pulse rose to 100. I ordered that ice and a centigramme of acetate of morphia should be taken; but the headache and sickness continued. The same treatment. On the 22nd there was nausea, vomiting, and fever. The memory was weakened, and the patient semi-somnolent. On the 24th the discharge had diminished, but the wound was tender, and pressure on the upper wall of the orbit, especially outwards, towards the lacrymal gland, was extremely painful. There was anorexia, thirst, the pulse 90, full and bounding, respiration much accelerated, general headache. I ordered calomel in a full dose. From this time to the 30th, the general symptoms abated; but they reappeared in all their intensity on the 9th of March, on which day the patient first went out. Three local bleedings gradually restored a satisfactory condition by the 1st of June. The girl remained for three weeks longer under careful observation, and, having suffered no relapse, was then allowed to leave the hospital. According to the last intelligence I have received, she continues in good health; and the functional disorders of her left eye, which did not yield until the removal of the foreign substance, have not reappeared."—(Weeker, *Études Ophthalmologiques*, tome i. p. 751.)

Owing to a fresh illness, she was admitted on the 30th August into the civil hospital of Wiesbaden. She then presented the following symptoms:—Congestion of the head, increased temperature of the body, pulse 100, regular, full; gastric region sensitive to pressure, vertigo, great headache, a feeling of dragging at the back of the neck, nausea, thirst, loss of appetite. During the next few days these symptoms increased; on the 7th September, sopor, deafness, dilated pupils. On the 13th she died, after being for some time in a comatose state. The *post-mortem* showed on the *left* side of the medulla oblongata an abscess, half an inch in size, penetrating into the cerebral substance; there was another abscess on the pons

Varolii between the arachnoid and pia mater. Unfortunately the history appears to have been unknown, and therefore no attention was paid at the examination to the connection between the injury and the intra-cranial disease.

It is very remarkable that, in all these cases, the patient had no suspicion of the presence of any foreign body, and that in two of them it was distinctly affirmed that the implement with which the injury had been inflicted had not been broken. They certainly teach that too much weight must not be attached to statements of this kind; and that the surgeon, in all cases of injury, should carefully use his own senses, and rely upon their report, rather than upon the narratives that are furnished to him.

STROUD, GLOUCESTERSHIRE, *November*, 1864.

RETROSPECT OF BRITISH AND FOREIGN MEDICAL JOURNALS.

BY THOMAS WINDSOR.

M. H. COLLIS: on Gonorrhœal Ophthalmia (*Dublin Quarterly Journal of Medical Science*, vol. xxxv. p. 5).—"This affection—so formidable to the surgeon to deal with, and so fatal to the usefulness of the eye—yields with marvellous rapidity to repeated weak injections. The inflamed and œdematous conjunctiva being punctured, or snipped with the scissors if necessary, a careful student can be put beside the patient's bed, and shown how to send the contents of the syringe underneath the upper lid, from the external canthus across the eyeball. In the most acute cases a solution of a quarter of a grain of nitrate of silver to the ounce of distilled water should be used every ten minutes, for the first hour; after that, a half-grain solution should be injected every half-hour. If this is carefully carried out for the first twenty-four hours, the patient's eye will be quite safe. A stronger solution may then be used; and, if needful, it may be followed in a couple of days by Guthrie's ointment of nitrate of silver, if the villous condition of the conjunctiva should seem to require it. I have followed this plan of treatment, generally, for at least nine years; and in that time I have never lost an eye from gonorrhœal ophthalmia, with one exception; in that case, the pupil in charge broke the syringe, and, thinking it a matter of no importance, waited for twenty-four hours to get it replaced; by this time the cornea had sloughed in one point, and the iris protruded. The man, however, was so fortunate as to recover, with comparatively slight injury to sight."

E. P. Wright: on Abscission in Staphyloma (*Dublin Medical Press*, 2nd series, ix. 656).—The author shows that Mr. Critchett had been preceded by Sir W. Wilde in the use of sutures. "While I have no doubt whatever that Mr. Critchett was perfectly ignorant of Sir W. Wilde's operation, otherwise he would have alluded to it;